

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A process for the catalytic generation of hydrogen by the self-sustaining combination of partial oxidation and steam-reforming of a hydrocarbon comprising contacting a mixture of the hydrocarbon and an oxygen-containing gas and steam with a catalyst comprising rhodium dispersed on a refractory oxide support material which comprises as cations cerium and zirconium, wherein the weight ratio of cerium to zirconium in the support material is from 50:50 to 99.5:0.5.
2. (Previously Presented) A process according to claim 1 wherein the stream is combined with the hydrocarbon and the oxygen-containing gas to form the mixture after the self-sustaining partial oxidation of the hydrocarbon has commenced.
3. (Previously Presented) A process according to claim 1 wherein the hydrocarbon is a straight chain hydrocarbon or a branch chain hydrocarbon.
4. (Original) A process according to claim 3 wherein the hydrocarbon contains 1 to 15 carbon atoms.
5. (Original) A process according to claim 4 wherein the hydrocarbon contains 1 to 7 carbon atoms.
6. (Previously Presented) A process according to claim 1 wherein the hydrocarbon is selected from methane, propane, butane, hexane, heptane, normal-octane, iso-octane, naphthas, liquified petroleum gas, reformulated petrol and diesel-type fuels.
7. (Previously Presented) A process according to claim 1 wherein the oxygen-containing gas is air.
8. (Previously Presented) A process according to claim 1 wherein rhodium comprises 0.1 weight *per cent* to 5 weight *per cent* of the total weight of the supported catalyst.
9. (Original) A process according to claim 8 wherein rhodium comprises 0.2 weight *per cent* to 2.5 weight *per cent* of the total weight of the supported catalyst.

10. (Previously Presented) A process according to claim 1 wherein the refractory oxide support material is a mixture of ceria and zirconia.

11. (Canceled)

12. (Canceled)

13. (Previously Presented) A process according to claim 1 wherein the catalyst is pre-heated to a temperature at which self-sustaining partial oxidation of the hydrocarbon commences.

14. (Original) A process according to claim 13 wherein the catalyst is pre-heated by direct heating to a temperature at which self-sustaining partial oxidation of the hydrocarbon commences.

15. (Original) A process according to claim 13 wherein the catalyst is pre-heated by catalytic heating to a temperature at which self-sustaining partial oxidation of the hydrocarbon commences.

16. (Currently Amended) A process according to claim 15 wherein the catalyst is pre-heated by feeding to the catalyst an oxygen-containing gas and an initiating compound which is more easily ~~oxidisable~~ oxidizable than the hydrocarbon which is to be partially ~~oxidised~~ oxidized.

17. (Original) A process according to claim 16 wherein the initiating compound is selected from methanol, hydrogen and dimethyl ether.

18. (Previously Presented) A process according to claim 1 wherein the mixture of the hydrocarbon and the oxygen-containing gas is fed to the catalyst when the catalyst has reached the temperature at which self-sustaining partial oxidation of the hydrocarbon will occur.

19. (Currently Amended) A process as claimed in claim 1 operated in combination with a catalysed water-gas shift reaction for the reduction of carbon monoxide in the hydrogen produced from the ~~hydrogen~~ hydrocarbon.

20. (Original) A process as claimed in claim 19 wherein the catalyst for the water-gas shift reaction is a copper or iron based catalyst.

21. (Previously Presented) A process according to claim 19 wherein the water-gas shift reaction catalyst is added to the rhodium based catalyst for the hydrogen generation reaction.

22. (Canceled)